

Application No. 10/673,349
MR1035-1318
Reply to Office Action of 20 July 2004

AMENDMENTS TO THE CLAIMS

The following listing of claims will replace all prior versions, and listings of claims in the application:

LISTING OF CLAIMS:

Claim 1 (Currently Amended): A method for using ammonium fluoride solution in photoelectrochemistry etching process of a silicon wafer, comprising the steps of: placing the wafer after a pre-etching process into an alcohol solution for activating the surface of the wafer and into an ammonium fluoride solution for an etching solution; and illuminating the back of the wafer with a halogen light and performing a photoelectrochemical etching process in a potentiostatic potentiostat.

Claim 2 (Original): The method of claim 1, wherein the concentration of ammonium fluoride is from 1.0 to 2.5 M.

Claim 3 (Currently amended): The method of claim 1, further comprising a step of: adding an ammonium chloride solution within the photoelectrochemical etching process in potentiostatic a potentiostat.

Claim 4 (Original): The method of claim 3, wherein the concentration of the ammonium chloride solution is from 0.1 to 1.5 M.

Claim 5 (Currently amended): The method of claim 1, wherein the brightness of halogen light is ~~50 W, 11000~~ 11,000 to ~~20000~~ 20,000 Lux.

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Claim 6 (Currently amended): The method of claim 1, wherein the potential of the ~~potentiostatic~~
potentiostat is from 0.25 V to 1.0 V.

Claim 7 (Original): The method of claim 1, wherein the temperature of the photoelectrochemical etching process is from 10 to 90° C.